

# B R E V I O R A

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### A NEW SKATE, *RAJA CERVIGONI*, FROM VENEZUELA AND THE GUIANAS

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*RAJA CERVIGONI* sp. nov.

*Holotype*: An immature male, 357 mm in total length, from 10 miles (16 km) northeast of Carúpano, in 20-30 fathoms (37-55 m), Museo Historia Natural La Salle, Venezuela, No. 873.

*Paratypes*: A male of 206 mm and a female of 229 mm from Punta Araya, Estado Sucre, in about 20 fathoms (37 m), from off the eastern part of Venezuela, and a male of 235 mm from off the Guianas, 07° 25' N, 54° 35' W, in 75-80 fathoms (137-145 m), "Oregon" station 2289.

*Distinctive characters*. Among rajids from the western Atlantic that have a pair of ocelli on the disc, *cervigoni* most closely resembles *Raja cyclophora* Regan 1903, but it differs in lacking dark mucous pores on the under surface, in having orbital and nuchal thorns, and 3 rows of thorns on the tail, whereas *cyclophora* has prominent blackish streaks below marking mucous pores, lacks orbital and nuchal thorns, and has a single row of thorns on the tail. In *cervigoni* the more sharply rounded outer corners of the disc, which is also relatively wider (averaging 73.2 per cent of the total length of the specimen on 4 individuals), distinguishes it from *texana* Chandler 1921 (average disc width 63.8 per cent on 23 specimens) and also from *ackleyi* Garman 1881 (average 59.4 per cent on 3 specimens): and its fewer thorns (16-26) in the midrow on the tail, between the axils of the pectorals and the first dorsal fin, together with the axis of greatest width further rearward (73-77 per cent, measured between the tip of the snout and axils of pectorals), set

<sup>1</sup> Contribution No. 1522 from the Woods Hole Oceanographic Institution.

it apart from *bahamensis* Bigelow and Schroeder<sup>2</sup> on which the thorns number 34-47 (4 specimens) and the greatest disc width is 64-69 per cent rearward.

*Description of holotype.* Proportional dimensions in per cent of total length.

Disc. — Extreme breadth 72.3; length 52.1.

Snout length. — In front of orbits 12.6; in front of mouth 14.6.

Orbits. — Horizontal diameter 4.4; distance between 4.2.

Spiracles. — Length 2.8; distance between 6.5.

Mouth. — Breadth 8.4.

Exposed nostrils. — Distance between inner ends 8.2.

Gill openings. — Length 1st 2.0; 3rd 2.0; 5th 1.5; distance between inner ends, 1st 15.6; 5th 8.0.

First dorsal fin. — Height 3.1; length of base 5.3.

Second dorsal fin. — Height 3.1; length of base 4.8.

Pelvics. — Anterior margin 13.2.

Distance. — From tip of snout to center of cloaca 47.6; from center of cloaca to 1st dorsal 33.0; to tip of tail 52.4; from rear end of 2nd dorsal to tip of tail 3.7.

Interspace. — 1st and 2nd dorsals 5.6.

Disc 1.4 times as broad as long; maximum angle is front of spiracles  $102^{\circ}$ ; snout pointed; anterior margins of disc nearly straight, outer corners sharply rounded; posterior and inner margins moderately convex. Axis of greatest breadth 73 per cent of distance back from tip of snout to axils of pectorals. Tail rather slender, the lateral folds low down, originating a little in advance of tips of pelvics, widening somewhat posteriorly as usual among rajids, reaching tip of tail; length of tail from center of cloaca to origin of first dorsal fin 0.70 times as great, and to its tip 1.10 times as great as distance from center of cloaca to tip of snout.

A row of 7 thorns along the anterior and inner margins of each orbit and a tiny thorn opposite inner margin of each spiracle and 2 over tip of rostrum. Three prominent thorns along the midline in the nuchal region, followed by a row of about 40 thorns which originates about midway between the rear margin of orbits and axils of pectorals, reaching to first dorsal fin, the first few thorns very small; 4 thorns in the interdorsal space. A row of about 30 thorns low down each side of the midrow on tail, beginning opposite axils of pelvics, reaching to opposite and second dorsal, very small rearward.

<sup>2</sup> In press (Bull. Mus. Comp. Zool.).

Most of the thorns on tail alternate in size. The upper surface of disc and tail otherwise smooth. A short row of 8 or 9 pale mucous pores each side and close to the first two nuchal thorns. Lower surface with small prickles on end of snout and in a narrow band along margin of disc from snout to about opposite mouth.

Snout in front of orbits 2.9 times as long as orbit; its length in front of mouth 1.8 times as great as distance between exposed nostrils. Distance between orbits about equal to length of orbit. Orbit 1.6 times as long as spiracle. Nasal curtain and expanded outer margin of nostrils fringed. Jaws moderately arched. Teeth  $\frac{42}{40}$ , arranged in quincunx, with ovate base and triangular cusp.

Distance between first gill openings 1.9 times as great as between exposed nostrils; between 5th openings about equal; first gill openings 0.45 times as long as longest diameter of orbit. Dorsals similar in shape, and nearly so in size, the interspace about equal to length of base of first dorsal. Second dorsal confluent with the caudal fin the base of which is shorter than that of the second dorsal. Pelvies deeply concave, scalloped along anterior side of excavation, weakly so rearward; anterior lobe slender, about  $\frac{1}{5}$  as long as distance from its own origin to rear tip of pelvic; posterior lobe with sharply rounded tip, extending about  $\frac{2}{5}$  the distance from axil of pectorals to first dorsal. The claspers of this immature specimen extend only to the tips of the pelvies. Rostral cartilage firm, narrow, extending nearly to tip of snout. Anterior pectoral rays reaching 58 per cent of the distance from axis through front margin of orbits to end of snout.

*Color.* Upper surface, including dorsals, plain medium brown. A prominent ocellus on each side of disc, situated a little posterior to the greatest axis of disc, its center from the midline of disc a distance about equal to that from tip of snout to anterior  $\frac{1}{3}$  of orbit; distance between centers of ocelli 1.1 times distance to centers of orbits. The ocellus is formed by a narrow black-brown circle 14 mm in diameter, within which two dark spots are present on the left ocellus and one spot on the right. Below, plain whitish on disc and pelvies, with no dark mucous pores, the tail with pale brown blotches.

The three paratypes agree closely with the holotype in most proportional dimensions and otherwise, the chief variations being as follows: anterior angle of disc  $104^{\circ}$ - $109^{\circ}$ ; orbital thorns 3, of which 2 are along anterior margin and 1 at inner rear

margin; 2 nuchal thorns; thorns in midline to first dorsal, beginning opposite axils of pectorals, 15-16; 2 thorns between dorsals; side row of thorns on tail, originating opposite axils of pelvies and ending opposite second dorsal, 16-21; these vary slightly in number from side to side; few of the tail thorns alternate in size; snout in front of orbits 2.6-2.8 times as long as orbit, its length in front of mouth 1.8-2.0 times as great as distance between nostrils; space between dorsals about  $\frac{3}{5}$ - $\frac{4}{5}$  as long as base of first dorsal. Teeth  $\frac{36}{33}$  -  $\frac{40}{37}$ , with low triangular cusp. On the lower surface, the narrow band of prickles along the anterior margin of disc is present, extending from near tip of snout to about opposite the axis midway between nostrils and mouth.

The color above is plain brown, the ocelli each with one small roundish dark brown spot centrally, on two specimens, the spot being irregular in shape on one specimen. Below, the disc and pelvies are pale, the tail with faint brownish blotches as on the holotype. The distance between centers of ocelli is about 0.9 times the distance to centers of orbits.

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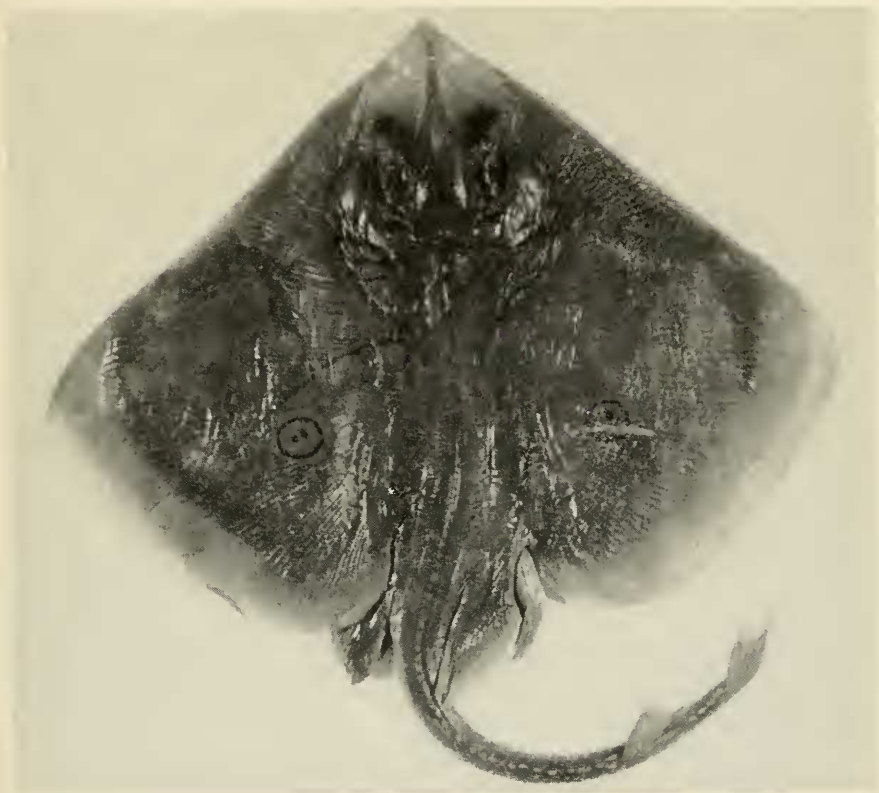
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